



PATENT APPLICATION
Navy Case No. 82,591

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Keller et al.

Serial No.: 10/006,385

Filed: December 10, 2001

For: METAL NANOPARTICLE THERMOSET AND CARBON COMPOSITIONS FROM
MIXTURES OF METALLOCENE-AROMATIC-ACETYLENE COMPOUNDS

Examiner: Not Yet Assigned

Group Art Unit: 1754

February 28, 2002

Honorable Assistant Commissioner of Patents
Washington, D.C. 20231

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APR 11 2002
TC 1700

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INFORMATION DISCLOSURE STATEMENT

Dear Sir:

Pursuant to the provisions of 37 C.F.R. § 1.97 et seq., the applicants submit the most relevant documents of which applicants are currently aware. The documents are identified on the attached form PTO-1449 and/or in an accompanying Statement of Relevance.

To the extent available, copies of the patents and or other documents cited are enclosed. If available and to the extent needed, English translations of pertinent portions of any non-English language references are also enclosed.

By this submission, applicants do not assert that a search of the prior art was made or that the patents and documents cited constitute all relevant prior art. The references cited constitute only that information now known to the applicants which, in the reasonable opinion of the applicants, is relevant to the claimed invention. The Examiner is requested to consider these documents, and to indicate such in any forthcoming office action.

Kindly charge any additional fees due, or credit any overpayment of fees, to Deposit Account

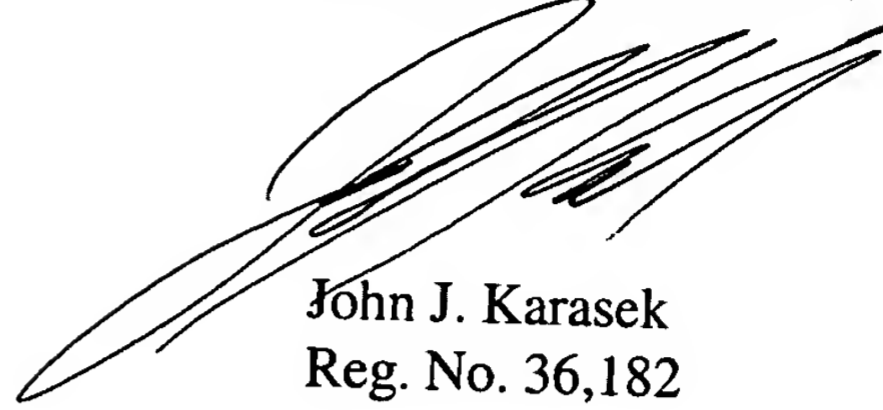
02/11/2002 NUCHEX1 00000121 500201 10006305

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No. 50-0281.

Respectfully submitted,

A handwritten signature in black ink, consisting of several overlapping, sweeping strokes that form a cursive, somewhat abstract representation of the name John J. Karasek.

John J. Karasek
Reg. No. 36,182

Prepared by:
Jane Barrow
Reg. No. 34,217
Phone No. 202-404-1551



17009 \$

PTO/SB/17 (10-01)
Approved for use through 10/31/2002. OMB 0651-0032
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FEE TRANSMITTAL for FY 2002

Patent fees are subject to annual revision.

TOTAL AMOUNT OF PAYMENT (\$ 180

Complete if Known

Application Number	10/006,385
Filing Date	December 12, 2001
First Named Inventor	Keller
Examiner Name	not yet assigned
Group Art Unit	1754
Attorney Docket No.	79,838

METHOD OF PAYMENT

1. ☒ The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to

Deposit Account Number 50-0281
Deposit Account Name Naval Research Laboratory

- ☒ Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17

☐ Applicant claims small entity status, See 37 CFR 1.27

2. ☐ Payment Enclosed:

☐ Check ☐ Credit card ☐ Money Order ☐ Other

FEE CALCULATION

1. BASIC FILING FEE

Large Entity	Small Entity	Fee Code	Fee Description	Fee Paid
101	740	201	370 Utility filing fee	
106	330	206	165 Design filing fee	
107	510	207	255 Plant filing fee	
108	740	208	370 Reissue filing fee	
114	160	214	80 Provisional filing fee	

SUBTOTAL (1) (\$ 0

2. EXTRA CLAIM FEES

Total Claims	Extra Claims	Fee from below	Fee Paid
Independent Claims	-20- =	X	0
Multiple Dependent	-3" =	X	

Large Entity	Small Entity	Fee Code	Fee Description
103	18	203	9 Claims in excess of 20
102	84	202	42 Independent claims in excess of 3
104	280	204	140 Multiple dependent claim, if not paid
109	84	209	42 ** Reissue independent claims over original patent
110	18	210	9 Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$ 0

**or number previously paid, if greater, For Reissues, see above

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity	Small Entity	Fee Code	Fee Description	Fee Paid
105	130	205	65 Surcharge - late filing fee or oath	
127	50	227	25 Surcharge - late provisional filing fee of cover sheet	
139	130	139	130 Non-English specification	
147	2,520	147	2,520 For filing a request for ex parte reexamination	
112	920*	11	2 920* Requesting publication of SIR prior to Examiner action	
113	1,840*	113	1,840* Requesting publication of SIR after Examiner action	
115	110	215	55 Extension for reply within first month	
116	400	216	200 Extension for reply within second month	
117	920	217	460 Extension for reply within third month	
118	1,440	218	720 Extension for reply within fourth month	
128	1,960	228	980 Extension for reply within fifth month	
119	320	219	160 Notice of Appeal	
120	320	220	160 Filing a brief in support of an appeal	
121	280	221	140 Request for oral hearing	
138	1,510	138	1,510 Petition to institute a public use proceeding	
140	110	240	55 Petition to revive - unavoidable	
141	1,280	241	640 Petition to revive - unintentional	
142	1,280	242	640 Utility issue fee (or reissue)	
143	460	243	230 Design issue fee	
144	620	244	310 Plant issue fee	
122	130	122	130 Petitions to the Commissioner	
123	50	123	50 Processing fee under 37 CFR 1.17(c)	
126	180	126	180 Submission of Information Disclosure Stmt	180
581	40	581	40 Recording each patent assignment per property (times number of properties)	
146	740	246	370 Filing a submission after final rejection (37 CFR § 1.129(a))	
149	740	249	370 For each additional invention to be examined (37 CFR § 1.129(b))	
179	740	279	370 Request for Continued Examination (RCE)	
169	900	169	900 Request for expedited examination of a design application	

Other fee (specify) _____

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$ 180

SUBMITTED BY

Name (Print/Type)	John J. Karasek	Registration No. (Attorney/Agent)	36,182	Telephone	202-404-1552
Signature		Date			

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

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Examiner Name	not yet assigned
Attorney Docket Number	82,591

(use as many sheets as necessary)

Sheet 1 of 2

U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

[illegible]

Examiner
Signature

Date
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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PTO/SB/08B (08-00)
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Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 2 of 3

Complete if Known

Application Number	10/006,385
Filing Date	December 10, 2001
First Named Inventor	Keller
Group Art Unit	1754
Examiner Name	not yet assigned
Attorney Docket Number	82,591

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials [*]	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		Jacoby, Data Storage: New Materials Push the Limits, June 12, 2000, C&EN, pp 37-45	
		Koltypin et al, Encapsulation of Nickel Nanoparticles in Carbon Obtained by the Sonochemical Decomposition of Ni(C ₈ H ₁₂) ₂ , Chem. Mater., 1999, Vol 11, pp. 1331-135	
		Morales et al, Surface and Internal Spin Canting in γ -Fe ₂ O ₃ Nanoparticles, Chem Mater., 1999, Vol 11, pp. 3058-3064	
		Jia et al, Some Acetylene and Hydride Chemistry of Group 8 Metal Complexes with Cyclopentadienyls and their Analogous Ligands, J. Organometallic Chemistry, 565, (1998), PP. 37-48	
		Kruis et al, Synthesis of Nanoparticles in the Gas Phase for Electronic, Optical and Magnetic Applications - A Review, J. Aerosol Sci. Vol 29, No. 5/6, pp. 511-535, 1998	
		Carpenter et al, Organometallic Compounds as Single-source Precursors to Nanocomposite Materials: An Overview, J. Organometallic Chemistry 557 (1998) pp. 121-130	
		Manziek et al, Functionalized Emulsion and Suspension Polymer Particles: Nanoreactors for the Synthesis of Inorganic Materials, Chem. Mater., 1998, Vol 10, pp 3101-3108	
		Fink et al, Ethynylferrocene Compounds of 1,3,5-Tribromobenzene, Organometallics, 1997, Vol 16, pp. 2646-2650	
		Moumen et al, New Synthesis of Cobalt Ferrite Particles in the Range 2-5nm: Comparison of the Magnetic Properties of the Nanosized Particles in Dispersed Fluid or in Powder Form, Chem. Mater., 1996, Vol 8, pp. 1128-1134	
		Hsung et al, Synthesis and Characterization of Unsymmetric Ferrocene-Terminated Phenylethynyl Oligomers Cp ₂ Fe-[C≡C-C ₆ H ₄] _n -X(X=SH, SMe, SOMe, and SO ₂ Me) Organometallics, 1995, Vol 14, pp. 4808-4815	
		Moller et al, Inorganic Nanoclusters in Organic Glasses-Novels Materials for Electro-optical Applications, Synthetic Metals, 41-43 (1991) pp 1159-1162	

Examiner
Signature

Date
Considered

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

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